

Please replace the paragraph beginning at page 16, line 3 with the following re-written paragraph:

B2 -- In order to illustrate this example in more detail, consider the case where the genotypes are a population of male patients partitioned into two groups (A,B) based upon prostate cancer activity experienced by the patients (i.e., patients belonging to group A have not experienced any prostate cancer activity, and patients belonging to group B have experienced prostate cancer activity). In addition, the descriptor vector associated with each male patient is expression data acquired from a gene probe array system, such as the GeneChipsystems developed by Affymetrix, Inc. In addition, a candidate and associated descriptor vector has been identified. Again, the descriptor vector associated with the candidate is expression data acquired from a gene probe array system, and one wishes to ascertain to which group the candidate belongs. The method discussed above may be used to provide a suggestion as to which group the candidate belongs. More specifically, the method described above is used to map the descriptor vector for each patient to a space that optimally discriminates between groups. In addition, the statistical mean of the mapped descriptor vectors for each group (or some other statistical variable, such as the covariance about the mean, based upon the mapped descriptor vectors) is calculated. In addition, the same mapping function is applied to the descriptor vector for the candidate. Finally, a suggestion as to which group the candidate belongs is determined based upon differences between the mapped descriptor vector for the candidate and the statistical mean of the mapped descriptor vectors for the groups A,B.--

In the claims:

Please amend the claims to read as follows:

B3 1. (Amended) In a data processing system wherein descriptor vectors associated with a plurality of regions of molecules are stored in a database, a method for generating and storing data characterizing at least one region of said plurality of regions, the method comprising the steps of:

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